



1     **A GOLF CLUB SHAFT FORMED FROM METAL-CONTAINING PREPREG**  
2     **AND NON-METAL FIBER PREPREG AND METHOD OF MAKING THE SAME**

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4                     **ABSTRACT OF THE DISCLOSURE**

5                     Disclosed is a golf club shaft of sheet-wound construction that  
6     approximates the characteristics of a steel shaft. The golf club shaft is formed  
7     using metal-containing prepreg and non-metal fiber prepreg in order to provide a  
8     sheet-wound club having an elasticity index (EI) value of  $3.0 \sim 4.5 \text{ kgf} \cdot \text{m}^2$ , a  
9     mass 80~130g, and a center of mass that is 45~51% of the overall length of the  
10    shaft. The metal-containing prepreg is wrapped around a mandrel near the tip  
11    of the shaft in order to position the center of mass where desired. The non-metal  
12    fiber prepreg is wrapped around the mandrel to provide the desired EI value and  
13    overall mass. Additional layers of metal-containing prepreg may be wrapped  
14    beyond the metal-containing prepreg wrapped near the tip in order to vary the  
15    characteristics of the golf club shaft. The golf club shaft is preferably formed on a  
16    mandrel that includes an annular recess at its tip in order to accommodate the  
17    metal-containing prepreg that is wrapped near the tip.